

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 51687/382205	FOR FURTHER ACTION <div style="text-align: right; font-size: small;">see Form PCT/ISA/220 as well as, where applicable, item 5 below.</div>	
International application No. PCT/US2009/058497	International filing date (<i>day/month/year</i>) 25/09/2009	(Earliest) Priority Date (<i>day/month/year</i>) 25/09/2008
Applicant TRANSGENRX, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6**bis**(a)).

c. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____
☐ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☒ none of the figures is to be published with the abstract

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. (means)

☒

 on paper
 - ☒

 in electronic form
 - b. (time)

☒

 in the international application as filed
 - ☐

 together with the international application in electronic form
 - ☒

 subsequently to this Authority for the purpose of search
2.

☒

 In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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A. CLASSIFICATION OF SUBJECT MATTER
INV. C12N15/85

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, COMPENDEX, Sequence Search, EMBASE, FSTA, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 2004/003157 A2 (TRANSGENRES LLC [US]; UNIV LOUISIANA STATE [US]; COOPER RICHARD K [US]) 8 January 2004 (2004-01-08) the whole document, in particular p.4, 2nd paragr.; p.6, 2nd paragr.; p.12, last paragr.; p.23, 2nd paragr.; p.32, 1.18; Example 20 (pTnMCS (CMV-prepro-ent-hGH-CPA), pTnMCS (CHOVep-prepro-ent-hGH-CPA), pTnMOD (CHOVep-prepro-ent-hGH-CPA), pTnMOD (CMV-prepro-ent-hGH-CPA)) and claims</p> <p style="text-align: center;">----- -/--</p>	1,11,13

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

19 March 2010

Date of mailing of the international search report

14/04/2010

Name and mailing address of the ISA/

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/067707 A2 (TRANSGENRES LLC [US]; UNIV LOUISIANA STATE [US]; COOPER RICHARD K [US]) 12 August 2004 (2004-08-12) the whole document, in particular p.4, 2nd paragr.; p.6, 2nd paragr.; p.12, 4th paragr.; p.24, 1st paragr.; p.28, 1.26; p.33, 1.4; Example 13 (pTnMCS (CHOVep-prepro-ent-hGH-CPA), pTnMOD (CHOVep-prepro-ent-hGH-CPA)) and claims -----	1,11,13
A	GEYER P K ET AL: "Protecting against promiscuity: The regulatory role of insulators." CMLS CELLULAR AND MOLECULAR LIFE SCIENCES, vol. 59, no. 12, December 2002 (2002-12), pages 2112-2127, XP002573586 ISSN: 1420-682X the whole document, in particular Table 1 -----	1-14
A	MAKSIMENKO O G ET AL: "[Insulators of higher eukaryotes: properties, mechanisms of action, and role in transcriptional regulation]" GENETIKA AUG 2006, vol. 42, no. 8, August 2006 (2006-08), pages 1029-1044, XP002573587 ISSN: 0016-6758 -----	1-14
A	WO 2004/065581 A2 (DISCOVERY GENOMICS INC [US]) 5 August 2004 (2004-08-05) -----	1-14
A	LARGAESPADA DAVID A: "Generating and manipulating transgenic animals using transposable elements" REPRODUCTIVE BIOLOGY AND ENDOCRINOLOGY, XX, XX, vol. 1, no. 1, 7 November 2003 (2003-11-07), page 80, XP021009352 ISSN: 1477-7827 -----	1-14
A	KOZAK ET AL: "At least six nucleotides preceding the AUG initiator codon enhance translation in mammalian cells" JOURNAL OF MOLECULAR BIOLOGY, LONDON, GB, vol. 196, no. 4, 20 August 1987 (1987-08-20), pages 947-950, XP024010432 ISSN: 0022-2836 [retrieved on 1987-08-20] -----	1-14

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Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		CA 2490693 A1	08-01-2004
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		AU 2003299959 A1	23-08-2004
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		EP 1592789 A2	09-11-2005
		EP 1597378 A2	23-11-2005
		JP 2006512921 T	20-04-2006
		JP 2006512922 T	20-04-2006
		WO 2004067706 A2	12-08-2004
		WO 2004067743 A1	12-08-2004
WO 2004065581	A2	05-08-2004	NONE